

In the Claims

1-34 (Cancelled)

35. (Currently Amended) A capsule pattern endoscope comprising:

an intelligent capsule comprising:

an outer shell having a front cover[,] and a rear cover;

a flexible PCB structure operatively connected to the outer shell;

an image information acquiring device operatively positioned relative to the outer shell and comprising:

an image sensor, operatively positioned on the flexible PCB structure within the outer shell; and

a lens optical system, operatively positioned on the flexible PCB structure within the outer shell and operatively connected to the image sensor;

an image signal processing and transmitting device operatively positioned on the flexible PCB structure within the outer shell;

a light source, operatively positioned on the flexible PCB structure within the outer shell; and

a power source, operatively positioned within the outer shell and operatively connected to the flexible PCB structure and physically separate from the flexible PCB structure; and

an image receiving device operatively positioned relative to the intelligent capsule.

36. (Previously provided) The capsule pattern endoscope of claim 35, wherein the image signal processing and transmitting device further comprises:

antenna structure operatively positioned proximate the rear cover of the outer shell.

37. (Canceled)

38. (Previously provided) The capsule pattern endoscope of claim 35 wherein the image information acquiring device further comprises:

an image compression processor.

39. (Previously provided) The capsule pattern endoscope of claim 35, wherein the image signal processing and transmitting device further comprises:

a microwave transceiver capable of sending compressed image data.

40. (Previously provided) The capsule pattern endoscope of claim 38 wherein the image compression processor includes an image-cutting device.

41. (Previously provided) The capsule pattern endoscope of claim 38, wherein the image compression processor includes an image compression rate adjusting device.

42. (Previously provided) The capsule pattern endoscope of claim 35, wherein the image sensor comprises:

a CMOS image sensor.

43. (Previously provided) The capsule pattern endoscope of claim 38, wherein the image compression processor comprises a CPU, DSP or ASIC processor.

44. (Previously provided) The capsule pattern endoscope of claim 35 further comprising:

a microwave communication chip.

45. (Previously provided) The capsule pattern endoscope of claim 35, wherein the image-receiving device includes an external controller compatible with a corresponding controller of the intelligent capsule.

46. (Previously provided) The capsule pattern endoscope of claim 45, wherein the external controller is capable of sending microwave control commands to the intelligent capsule so that the controller of the intelligent capsule completes the commands received from the external controller.

47. (Canceled)

48 (Canceled)

49. (Currently Amended) The capsule pattern endoscope of claim 48 35, wherein the flexible PCB structure comprises a cylindrical shape.

50. (Previously provided) The capsule pattern endoscope of claim 49, wherein the cylindrical shaped flexible PCB structure is operatively connected to the power source.

51. (Previously provided) The capsule pattern endoscope of claim 50, wherein the cylindrical shaped flexible PCB structure and the power source are operatively positioned inside the outer shell.

52. (Withdrawn) A method of assembling a capsule pattern endoscope comprising:

- providing an outer shell;

- providing a flexible circuit board;

- providing a camera device;

- providing a DSP device;

- providing a wireless emission device;

- assembling the camera device, the DSP device and the wireless emission device on the flexible circuit board;

- manipulating the flexible circuit board having the camera device, the DSP device in the wireless emission device mounted thereon into a cylindrical like structure;

- operatively positioning the cylindrical like structured flexible circuit board into the outer shell;

- providing a power source and operatively positioning the power source inside the outer shell;

- operatively connecting the power source to the flexible circuit board operatively positioned inside the outer shell; and

- operatively positioning wireless transmission structure of the outer surface of the outer shell for communications with an image receiving device operatively positioned relative to the

intelligent capsule.